

CLAIMS

What is claimed is:

1. A serpentine conductive path comprising:  
a plurality of generally parallel wires;  
a pair of conductive busses running generally parallel to one another and generally perpendicular to said wires;  
wherein said wires are electrically connected to said conductive busses; and  
wherein said conductive busses further comprise a plurality of isolation punches so as to form an electrically conductive serpentine pattern in conjunction with said wires.
2. The apparatus of claim 1 wherein said wires and busses are incorporated into a woven substrate.
3. The apparatus of claim 2 wherein said wires and busses are woven into said woven substrate.
4. The apparatus of claim 1 wherein said wires are temperature sensitive.
5. The apparatus of claim 4 wherein said wires have a positive temperature coefficient of resistivity.
6. The apparatus of claim 1 wherein said wires are crimped to said busses.
7. The apparatus of claim 1 wherein said wires are welded to said busses.
8. The apparatus of claim 3 wherein said wires are temperature sensitive.
9. The apparatus of claim 8 wherein said wires have a positive temperature coefficient of resistivity.

10. The apparatus of claim 3 wherein said wires are crimped to said busses.
11. The apparatus of claim 3 wherein said wires are welded to said busses.
12. The apparatus of claim 3 wherein said woven substrate is an electric blanket.
13. The apparatus of claim 3 further comprising a plurality of heating busses in electrical conduction with a plurality of heating wires.
14. The apparatus of claim 13 wherein one of said heating busses is in electrical conduction with one end of the serpentine conductive path.
15. A method of manufacturing a woven substrate having a serpentine conductive path therein, comprising the steps of:
  - weaving the woven substrate of an electrically non-conductive material;
  - weaving into the woven substrate a plurality of generally parallel wires;
  - weaving into the woven substrate a pair of conductive busses running generally parallel to one another and generally perpendicular to said wires;
  - electrically connecting said wires to said conductive busses; and
  - punching isolation holes into said conductive busses so as to form an electrically conductive serpentine pattern in conjunction with said wires.
16. The method of claim 15 further comprising the step of weaving into the woven substrate a heating element.
17. The method of claim 16 wherein said weaving of a heating element further comprises the steps of:
  - weaving into the woven substrate a plurality of heating wires;
  - weaving into the woven substrate a plurality of heating busses running substantially perpendicular to said heating wires and in electrical conduction therewith.